

Serial Number: 10/010,667A

CRF Processing Date: 6/17/2002  
 Edited by: [Signature]  
 Verified by: [Signature] (STIC staff)

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically:
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included:
- ☐ Deleted extra, invalid, headings used by an applicant, specifically:
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file;  
☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically:
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically:
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_



OIEP

## RAW SEQUENCE LISTING

DATE: 06/17/2002

PATENT APPLICATION: US/10/010,667A

TIME: 19:48:45

Input Set : N:\jumbos\010667A.txt

Output Set: N:\CRF3\06172002\J010667A.raw

P.6

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4 <110> APPLICANT: Afar, Daniel
5 Hubert, Rene S.
6 Leong, Kahan
7 Raitano, Arthur B.
8 Saffran, Douglas C.
9 Mitchell, Steve Chappell
11 <120> TITLE OF INVENTION: NOVEL SERPENTINE TRANSMEMBRANE ANTIGENS
12 EXPRESSED IN HUMAN CANCERS AND USES THEREOF
15 <130> FILE REFERENCE: 511582001601
17 <140> CURRENT APPLICATION NUMBER: US 10/010,667A
18 <141> CURRENT FILING DATE: 2001-12-06
20 <150> PRIOR APPLICATION NUMBER: 09/323,873
21 <151> PRIOR FILING DATE: 1999-06-01
23 <150> PRIOR APPLICATION NUMBER: 60/087,520
24 <151> PRIOR FILING DATE: 1998-06-01
26 <150> PRIOR APPLICATION NUMBER: 60/091,183
27 <151> PRIOR FILING DATE: 1998-06-30
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35 <212> TYPE: DNA
36 <213> ORGANISM: Homo Sapiens
38 <400> SEQUENCE: 1
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41 ggagaaaattt agaagaagac gattatttgc ataaggacac gggagagacc agcatgctaa 180
42 aaagacctgt gcttttgcatt ttgcacacaa cagcccatgc tgatgaattt gactgccctt 240
43 cagaacttca gcacacacag gaactctttc cacagtggca ctggccaatt aaaatagctg 300
44 ctattatagc atctctgact ttctcttaca ctcttctgag ggaagtaatt caccctttag 360
45 caacttccca tcaacaatat ttttataaaa ttccaatcct ggatcatcaac aaagtcttgc 420
46 caatgtgttc catcactctc ttggcattgg ttacactgcc aggtgtgata gcagcaattg 480
47 tccaacttca taatggaacc aagtataaga agtttccaca ttggttggat aagtggatgt 540
48 taacaagaaa gcagtttggg ctctctcagtt tcttttttgc tgtactgcat gcaatttata 600
49 gtctgtctta cccaatgagg cgatcctaca gatacaagtt gctaaactgg gcatatcaac 660
50 aggtccaaca aaataaagaa gatgcctgga ttgagcatga tgtttggaga atggagattt 720
51 atgtgtctct ggaattgtgt ggattggcaa tactggctct gttggctgtg acatctattc 780
52 catctgtgag tgactctttg acatggagag aatttccacta tattcagagc aagctaggaa 840
53 ttgtttccct tctactgggc acaatacacg cattgatatt tgccctggaat aagtggatag 900
54 atataaaaca atttgtatgg tatcacctc caacttttat gatagctgtt tctcttccaa 960
55 ttgttgtctc gatattttaa agcatactat tcctgccatg cttgagggaag aagatactga 1020
56 agattagaca tggttgggaa gacgtcacca aaattaacaa aactgagata tgttccaggt 1080
57 tgtagaatta ctgtttacac acatttttgt tcaatattga tatattttat caccaacatt 1140

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Output Set: N:\CRF3\06172002\J010667A.raw

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63 <213> ORGANISM: Homo sapiens
64 <400> SEQUENCE: 2
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66 1 5 10 15
67 Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys Asp Thr
68 20 25 30
69 Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His Leu His Gln
70 35 40 45
71 Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu Leu Gln His Thr
72 50 55 60
73 Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile Lys Ile Ala Ala Ile
74 65 70 75 80
75 Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu Leu Arg Glu Val Ile His
76 85 90 95
77 Pro Leu Ala Thr Ser His Gln Gln Tyr Phe Tyr Lys Ile Pro Ile Leu
78 100 105 110
79 Val Ile Asn Lys Val Leu Pro Met Val Ser Ile Thr Leu Leu Ala Leu
80 115 120 125
81 Val Tyr Leu Pro Gly Val Ile Ala Ala Ile Val Gln Leu His Asn Gly
82 130 135 140
83 Thr Lys Tyr Lys Lys Phe Pro His Trp Leu Asp Lys Trp Met Leu Thr
84 145 150 155 160
85 Arg Lys Gln Phe Gly Leu Leu Ser Phe Phe Phe Ala Val Leu His Ala
86 165 170 175
87 Ile Tyr Ser Leu Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu
88 180 185 190
89 Leu Asn Trp Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp
90 195 200 205
91 Ile Glu His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile
92 210 215 220
93 Val Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser
94 225 230 235 240
95 Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser Lys
96 245 250 255
97 Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu Ile Phe
98 260 265 270
99 Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp Tyr Thr Pro
100 275 280 285
101 Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val Val Leu Ile Phe
102 290 295 300
103 Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys Lys Ile Leu Lys Ile
104 305 310 315 320
105 Arg His Gly Trp Glu Asp Val Thr Lys Ile Asn Lys Thr Glu Ile Cys
106 325 330 335
107 Ser Gln Leu

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Input Set : N:\jumbos\010667A.txt

Output Set: N:\CRF3\06172002\J010667A.raw

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121 <211> LENGTH: 24
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence
125 <220> FEATURE:
126 <223> OTHER INFORMATION: Primer
128 <400> SEQUENCE: 4
129 actttgttga tgaccaggat tgga      24
131 <210> SEQ ID NO: 5
132 <211> LENGTH: 24
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Primer
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143 <211> LENGTH: 3627
144 <212> TYPE: DNA
145 <213> ORGANISM: Homo sapiens
147 <400> SEQUENCE: 6
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149 gtgggtggct gaagccatac tattttatag aattaatgga aagcagaaaa gacatcacaa      120
150 accaagaaga actttggaaa atgaagccta ggagaaattt agaagaagac gattatttgc      180
151 ataaggacac gggagagacc agcatgctaa aaagacctgt gcttttgcac ttgcacacaa      240
152 cagcccatgc tgatgaattt gactgccctt cagaacttca gcacacacag gaactctttc      300
153 cacagtggca cttgcccaatt aaaatagctg ctattatagc atctctgact tttctttaca      360
154 ctcttctgag ggaagtaatt cacccttag caacttccca tcaacaatat tttataaaaa      420
155 ttccaatcct ggtcatcaac aaagtcttgc caatggtttc catcactctc ttggcattgg      480
156 ttacactgcc aggtgtgata gcagcaattg tccaacttca taatggaacc aagtataaga      540
157 agtttcacac ttggttggat aagtggaagt taacaagaaa gcagtttggg cttctcagtt      600
158 tcttttttgc tgtactgcat gcaatttata gtctgtotta cccaatgagg cgatcctaca      660
159 gatacaagtt gctaaaactgg gcatatcaac aggtccaaca aaataaagaa gatgcctgga      720
160 ttgagcatga tgtttgagaa atggagattt atgtgtctct gggaatttgy ggattggcaa      780
161 tactgtctct gttggctgtg acatctatct catctgtgag tgactctttg acatggagag      840
162 aatttcaata tattcaggta aataatataa aaaataaacc taagagggtaa attctttttt      900
163 tgtgtttatg atatagaata tgttgacttt accccataaa aaataacaaa tgtttttcaa      960
164 cagcaaaagt cttatacttg ttccaattaa taatgtgctc tcctgttgtt ttccctattg      1020
165 cttctaatta ggacaagtgt ttccctagaca taaataaaaag gcattaaaat attctttgtt      1080
166 tttttttttt tgttttgttg tttttgtttt gtttgtttgt ttttttgaga tgaagtctcg      1140
167 ctctgttgcc catgctggag tacagtggca cgatctcggc tcaactgcaac ctgcgcctcc      1200
168 tgggttcagg cgattctctt gcctcagcct cctgagtagc tgggattaca ggcacccatc      1260

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Input Set : N:\jumbos\010667A.txt

Output Set: N:\CRF3\06172002\J010667A.raw

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170	ctggctcoga	tctcctgacc	tcaaatgato	cgccccctc	ggcctcccaa	agtgcctggga	1380
171	tgacagttgt	gagccaccac	actcagcctg	ctctttctaa	tatttgaaac	ttgttagaca	1440
172	atttgctacc	catctaattg	gatatttttag	gaatccaata	tgcatgggtt	attattttott	1500
173	aaaaaaaaata	ttcttttacc	tgtcacctga	atttagtaat	gccttttatg	ttacacaaact	1560
174	tagcactttc	cagaaacaaa	aactctctcc	ttgaaataat	agagttttta	tctaccaaag	1620
175	atatgctagt	gtctcatttc	aaaggctgct	ttttccagct	tacattttat	atacttactc	1680
176	acttgaagtt	tctaaatatt	cttgtaattt	taaaactatc	tcagattttac	tgagggtttat	1740
177	cttctggtgg	tagattatcc	ataagaagag	tgatgtgcca	gaatcactct	gggatccctg	1800
178	tctgacaaga	ttcaaaaggac	taaatttaat	tcagtcatga	acactgccaa	ttaccgttta	1860
179	tgggtagaca	cttttgaaa	tttcacacaag	gtcagacatt	cgcaactatc	ccttctacat	1920
180	gtccacacgt	atactccaac	actttattag	gcactctgatt	agtttggaag	gtatgctctc	1980
181	atctgaatta	gtccagtgtg	gcttagagtt	ggtacaacat	tctcacagaa	tttctcaatt	2040
182	ttgtagggtc	agcctgataa	ccactggagt	tctttgggtc	tcattaataa	gctttcttca	2100
183	caactgtctc	tgccgtttac	acatatgatg	aacactgctt	tttagacttc	attaggtaatt	2160
184	taggactgca	tcttgacaac	tgagcctatt	ctactatatg	tacaatacct	agcccataat	2220
185	aggtatacaa	tacacatttg	gtaaaaactaa	ttttcaacca	atgacatgta	tttttcaact	2280
186	agtaacctag	aaatgtttca	ctttaaactc	gagaactggg	tacactacaa	gttaccttgg	2340
187	agattcatat	atgaaaacgc	aaacttagct	atttgattgt	attcactggg	acttaagaat	2400
188	gcgcctgaat	aattgtgagt	tcgattttgt	ctggcaggct	aatgaccatt	tcagtaaaag	2460
189	tgaatagagg	tcagaagtcg	tataaaagag	gtgtgtgcag	aacaccgttg	agattacata	2520
190	ggtgaacaac	tatttttaag	caactttatt	tgtgtagtga	caaagcatcc	caatgcaggc	2580
191	tgaatgtttt	catcacatct	ctggatctct	ctattttgtg	cagacattga	aaaaattgtt	2640
192	catatttttt	ccatgtttac	agaatatttg	attttttaaa	aaacatggcc	aagttcattc	2700
193	acttcattat	tcattttatca	aaatcagagt	gaatcacatt	agtcgccttc	acaactgata	2760
194	aagatcactg	aagtc aaatt	gatttttgc	ataatcttca	atctacctat	atttaattga	2820
195	gaatctaaaa	tgtacaaatc	attgtgttga	ttctgcagtg	atcctgctat	aagtaagact	2880
196	cagtcctcga	ttttagggtat	cctgtgaaaa	gcagaattaa	gacaaataca	caagagacaa	2940
197	agcacaaaaa	ataaatatca	taaggggatg	aacaaaatgg	tggagaaaga	gtagacaaag	3000
198	tttttgatca	cctgccttca	aagaaggct	gtgaattttg	ttcacttaga	cagcttgagg	3060
199	acaagaaatt	acccaaaagt	aaggtgagga	ggataggcaa	aaagagcaga	aagatgtgaa	3120
200	tggacattgt	tgagaaatgt	gataggaaaa	caatcataga	taaaggattt	ccaagcaaca	3180
201	gagcatatcc	agatgaggtg	ggatggggata	aactcttatt	gaaccaatct	tcaccaattt	3240
202	tgtttttctt	ttgcagagca	agctaggaa	tgtttccctt	ctactgggca	caatacacgc	3300
203	attgattttt	gcctggaata	agtggataga	tataaaacaa	tttgatgggt	atacacctcc	3360
204	aaacttttat	atagctgttt	tccttccaat	tgttgtcctg	atattttaaa	gcatactatt	3420
205	cctgccatgc	ttgaggaaga	agatactgaa	gattagacat	ggttggaag	acgtcaccaa	3480
206	aattaaacaa	actgagatat	gttcccagtt	gtagaattac	tgtttacaca	catttttgtt	3540
207	caatattgat	atatttttac	acccaattt	caagtttgta	ttgtttaata	aaatgattat	3600
208	tcaaggaaaa	aaaaaaaaaa	aaaaaaa				3627
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213	<213>	ORGANISM: Homo sapiens					
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218	accaagtata	ggagatttcc	accttggttg	gaaacctggg	tacagtgtag	aaaacagctt	180
219	ggattactaa	gttttttctt	cgctatggtc	catgttgctt	acagcctctg	cttaccgatg	240

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DATE: 06/17/2002

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TIME: 19:48:45

Input Set : N:\jumbos\010667A.txt

Output Set: N:\CRF3\06172002\J010667A.raw

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222 atgagccttg gcttactttc cctcctggca gtcacttcta tcccttcagt gagcaatgct      420
223 ttaaaactgga gagaattcag ttttattcag tctacacttg gatatgtcgc tctgctcata      480
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227 <211> LENGTH: 173
228 <212> TYPE: PRT
229 <213> ORGANISM: Homo sapiens
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233 1 5 10 15
234 Val Ala Ile Thr Leu Leu Ser Leu Val Tyr Leu Ala Gly Leu Leu Ala
235 20 25 30
236 Ala Ala Tyr Gln Leu Tyr Tyr Gly Thr Lys Tyr Arg Arg Phe Pro Pro
237 35 40 45
238 Trp Leu Glu Thr Trp Leu Gln Cys Arg Lys Gln Leu Gly Leu Leu Ser
239 50 55 60
240 Phe Phe Phe Ala Met Val His Val Ala Tyr Ser Leu Cys Leu Pro Met
241 65 70 75 80
242 Arg Arg Ser Glu Arg Tyr Leu Phe Leu Asn Met Ala Tyr Gln Gln Val
243 85 90 95
244 His Ala Asn Ile Glu Asn Ser Trp Asn Glu Glu Glu Val Trp Arg Ile
245 100 105 110
246 Glu Met Tyr Ile Ser Phe Gly Ile Met Ser Leu Gly Leu Leu Ser Leu
247 115 120 125
248 Leu Ala Val Thr Ser Ile Pro Ser Val Ser Asn Ala Leu Asn Trp Arg
249 130 135 140
250 Glu Phe Ser Phe Ile Gln Ser Thr Leu Gly Tyr Val Ala Leu Leu Ile
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252 Ser Thr Phe His Val Leu Ile Tyr Gly Trp Lys Arg Ala
253 165 170
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256 <211> LENGTH: 322
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258 <213> ORGANISM: Homo sapiens
260 <400> SEQUENCE: 9
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263 attactttgc tctccctagt ataccttgca ggtcttctgg cagctgctta tcaactttat      180
264 tacggcacca agtataggag atttccacct tggttggaaa cctggttaca gtgtagaaaa      240
265 cagcttggat tactaagttg tttcttcgct atggtccatg ttgcctacag cctctgctta      300
266 ccgatgagaa ggtcagagag at      322
268 <210> SEQ ID NO: 10
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271 <213> ORGANISM: Homo sapiens
273 <400> SEQUENCE: 10
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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 06/17/2002  
PATENT APPLICATION: US/10/010,667A      TIME: 19:48:46

Input Set : N:\jumbos\010667A.txt  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 11,56,233,250,310,326,377,398